

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
1 April 2004 (01.04.2004)

PCT

(10) International Publication Number
WO 2004/027306 A1

(51) International Patent Classification⁷: F16L 19/08

(21) International Application Number:
PCT/US2003/031021

(22) International Filing Date:
18 September 2003 (18.09.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/411,617 18 September 2002 (18.09.2002) US

(71) Applicant (for all designated States except US):
SWAGELOK COMPANY [US/US]; 29500 Solon
Road, Solon, OH 44139 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): WILLIAMS, Peter,
C. [US/US]; 3495 Edison Road, Cleveland Heights, OH
44121 (US).

(74) Agent: MCKNIGHT, Douglas, B.; Calfee, Halter & Gris-
wold LLP, 800 Superior Avenue, Suite 1400, Cleveland,
OH 44114 (US).

(81) Designated States (national): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE,
GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR,
KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK,
MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT,
RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR,
TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,
SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM,
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

— of inventorship (Rule 4.17(iv)) for US only

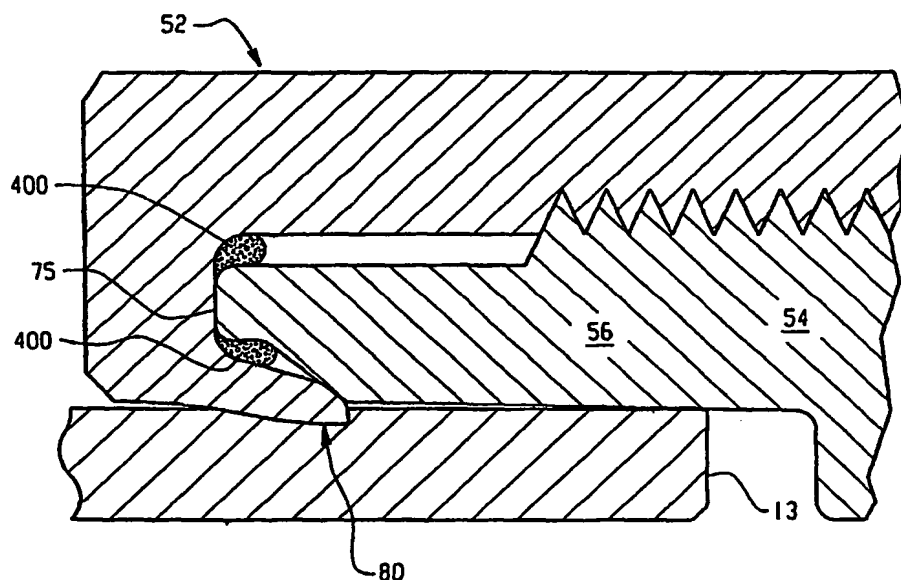
Published:

— with international search report

— before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: TUBE FITTING WITH TUBE GRIPPING RING AND SEALANT



(57) Abstract: A tube fitting (50) that uses two basic components, namely a fitting body (54) and a fitting nut (52). The nut (52) and body (54) are adapted to be threadably coupled together by relative rotation therebetween. The nut (52) includes an integral tube gripping ring (80) that may be separable from the nut upon pull-up of the fitting. The tube gripping ring and nut (52) form a trepan in which a sealant (400) is disposed.